Tooth Morphology & Anatomy

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Terminal Learning Objective

Given the opportunity to study anatomical landmarks and features of teeth identify basic anatomical features and the surrounding tissue that support them IAW Torres, H. O.., and Ehrlich, A. Modern Dental Assisting, 2002. 7th ed.,

Enabling Learning Objectives

- Given an illustration of a tooth and its associated structure identify the correct anatomical landmarks of a tooth IAW cited reference.
- Given a requirement to place restorations in teeth identify the occlusal and proximal ridges on maxillary and mandibular anterior and posterior teeth IAW cited reference.

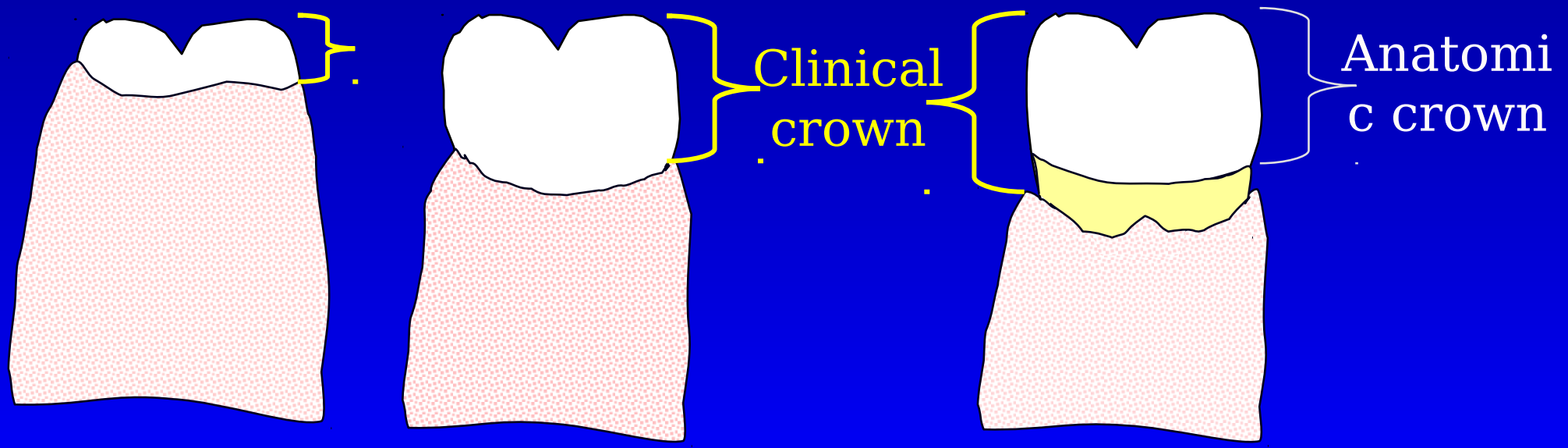
Tooth Anatomy

Anatomical crown-

Anatomic crown- portion of tooth covered with enamel.

Tooth Anatomy

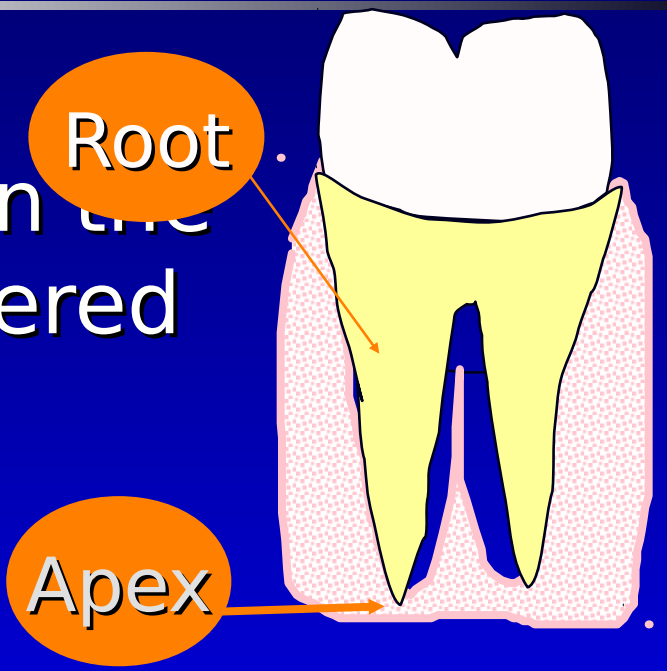
Clinical crown- visible part of tooth above gum line.



Tooth Anatomy

Root-
Part of tooth embedded in the alveolar process and covered by cementum.

Apex- tapered end



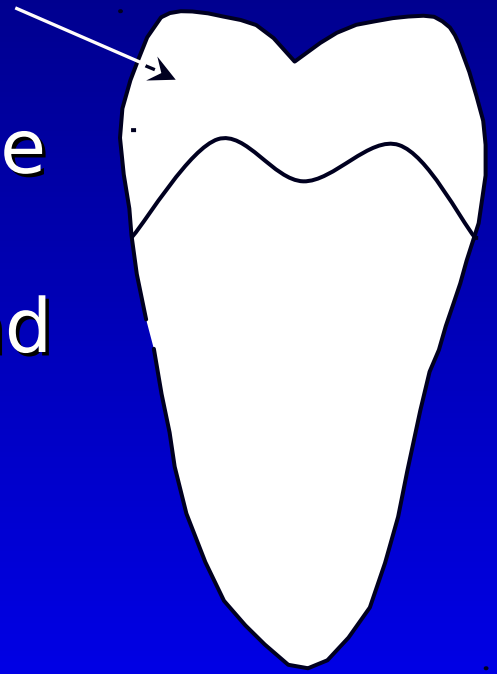
Tooth Anatomy

Enamel

(a) Makes up anatomic crown.

(b) Hardest material in the human body.

(c) Incapable of remodeling and repair.



Tooth Anatomy

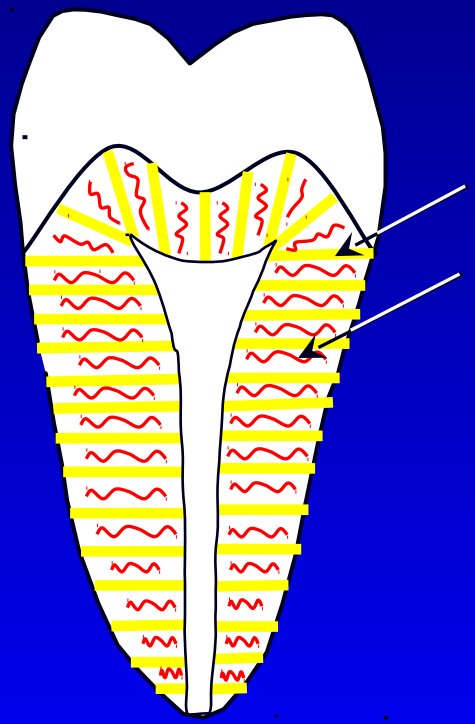
Dentin

(a) Makes up bulk of tooth.

(b) Covered by enamel on crown and cementum on the root.

(c) Not as hard as enamel.

(d) Exposed dentin is often sensitive to cold, hot, air, and touch.



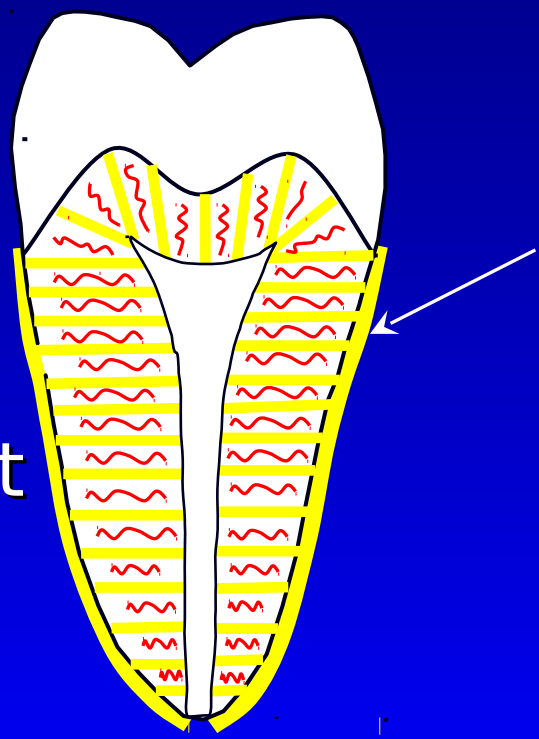
Tooth Anatomy

Cementum

(a) Covers root of tooth.

(b) Overlies the dentin and joins the enamel at the CEJ.

(c) Primary function is to anchor the tooth to the bony socket with attachment fibers.

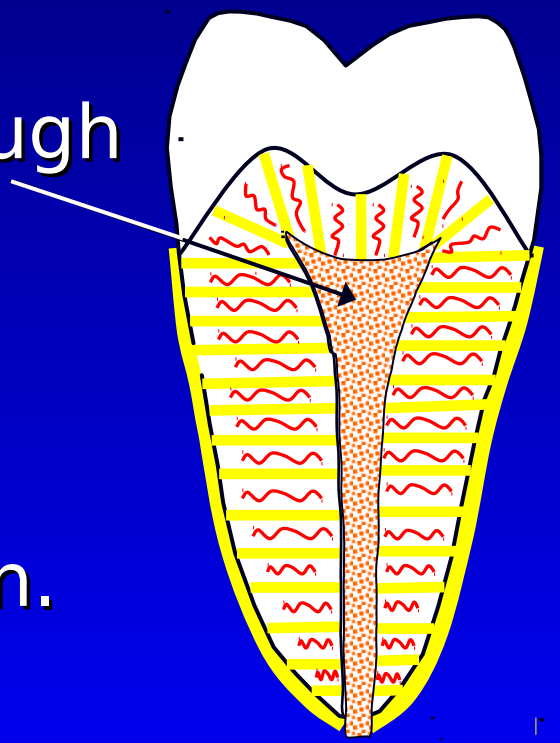


Tooth Anatomy

Pulp

(a) Made up of blood vessels and nerves entering through the apical foramen.

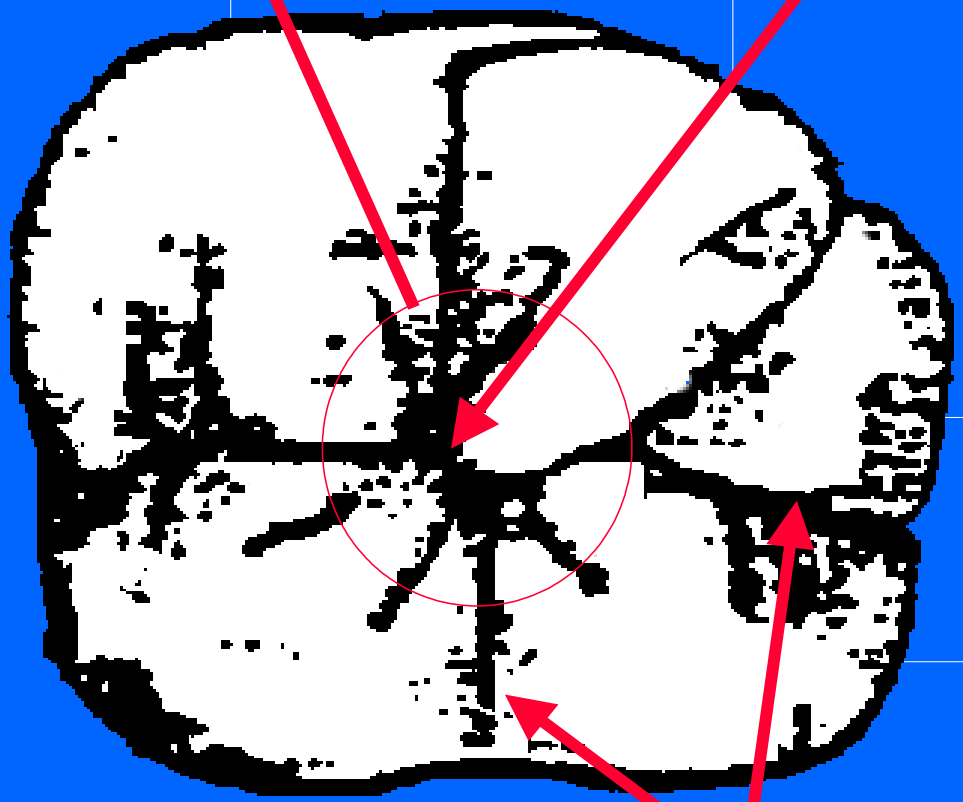
(b) Contains connective tissue, which aids interchange between pulp and dentin.

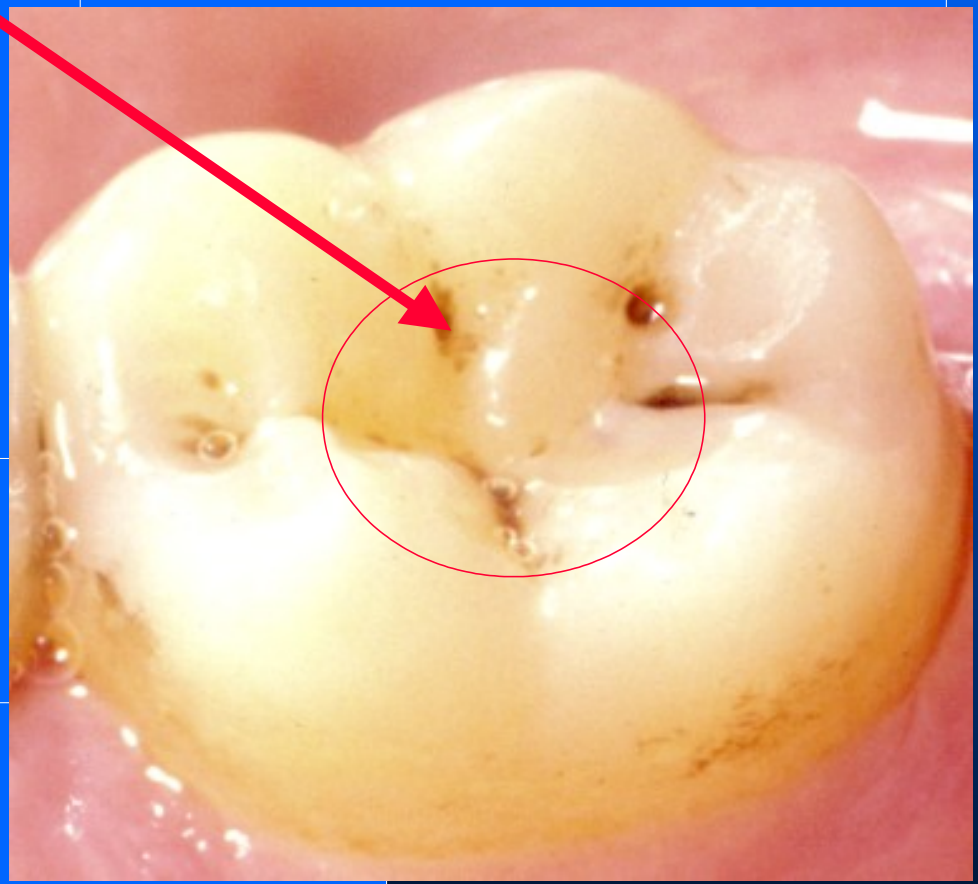


Tooth Anatomy

Fossa

Pit





Groove

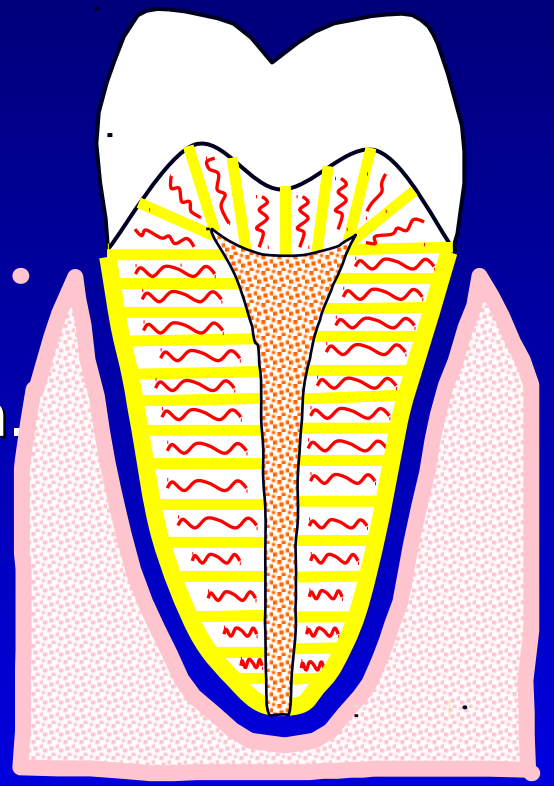
Supporting Structure

Periodontium

(1) Alveolar process

(a) Bone extensions of the maxillae and mandible that supports the teeth.

(b) Cortical plate is the dense outer layer of bone covering the spongy (cancellous) bone



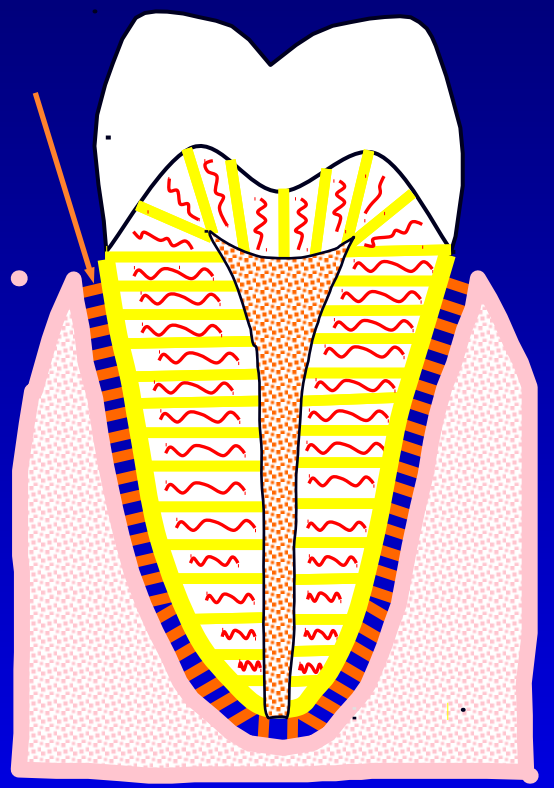
Supporting Structure

(2) Periodontal ligaments

(a) Dense connective fibrous tissues that connect teeth to the alveolar bone.

(b) One end is embedded in cementum and other end in bone.

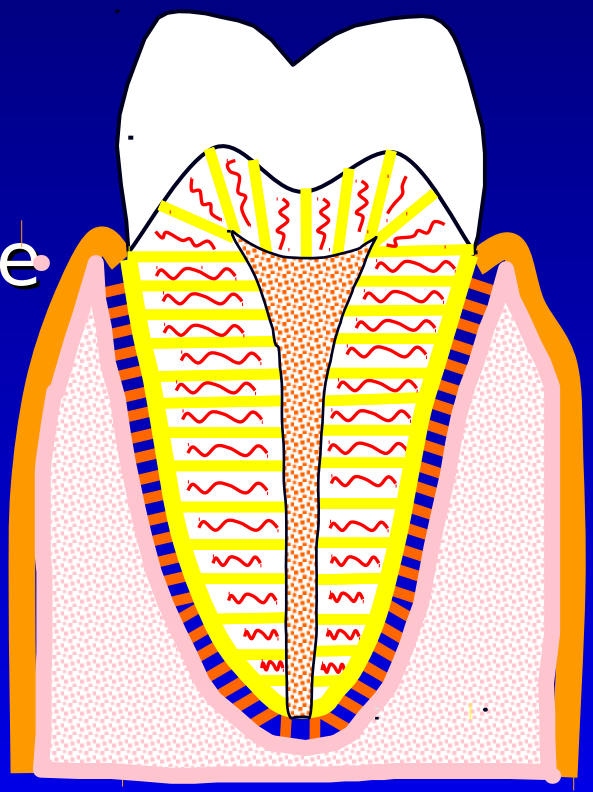
(c) Supports and protects the tooth from normal shock.



Terminology

(3) Gingiva

Surrounds the teeth and covers the alveolar process.



Tooth Anatomy

Enamel

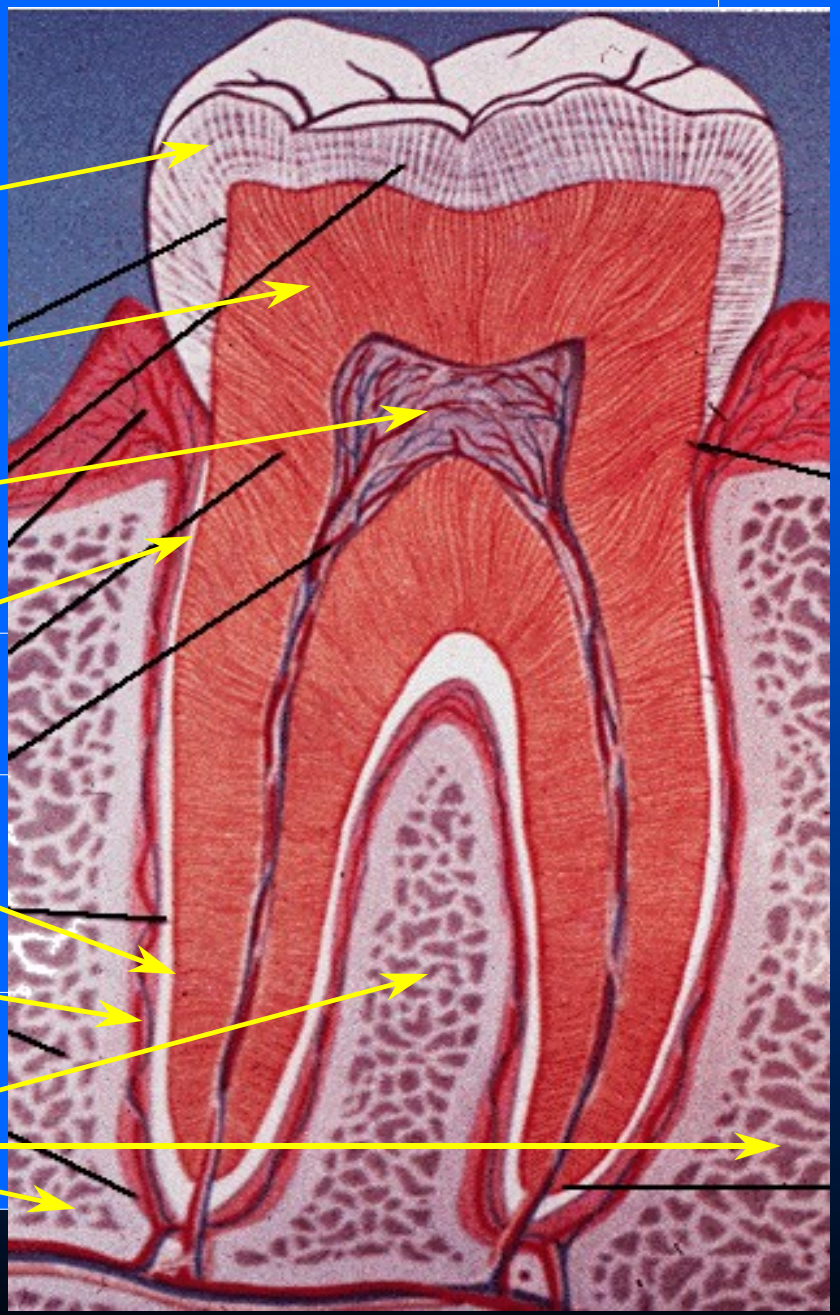
Dentin

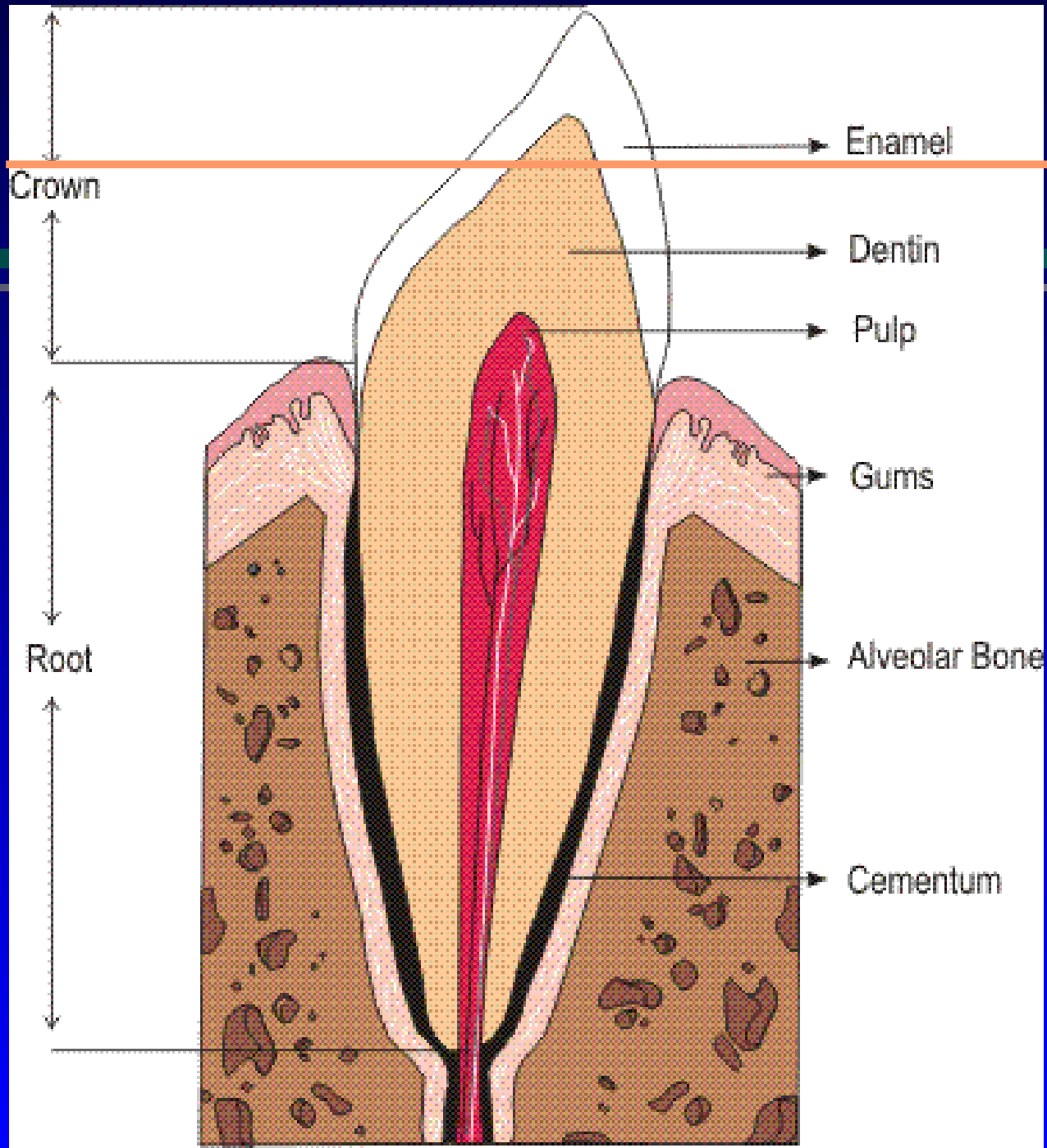
Pulp

Cementum

PDL

Alveolar process



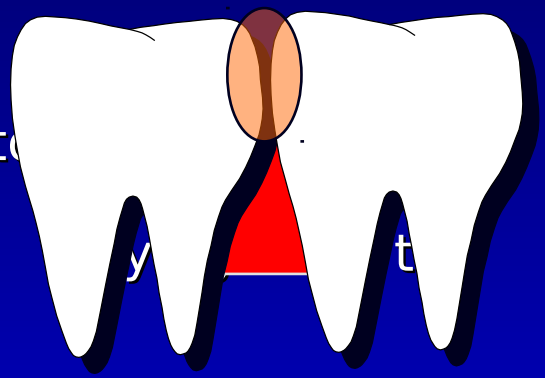

Crown
Root
Enamel
Dentin
Pulp
Gums
Alveolar Bone
Cementum

Tooth Surfaces

Proximal surfaces - mesial

or distal surface of a t

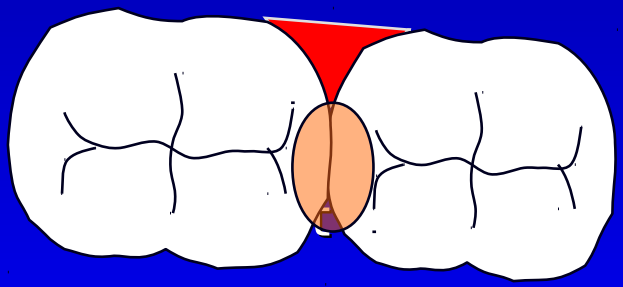
another tooth.



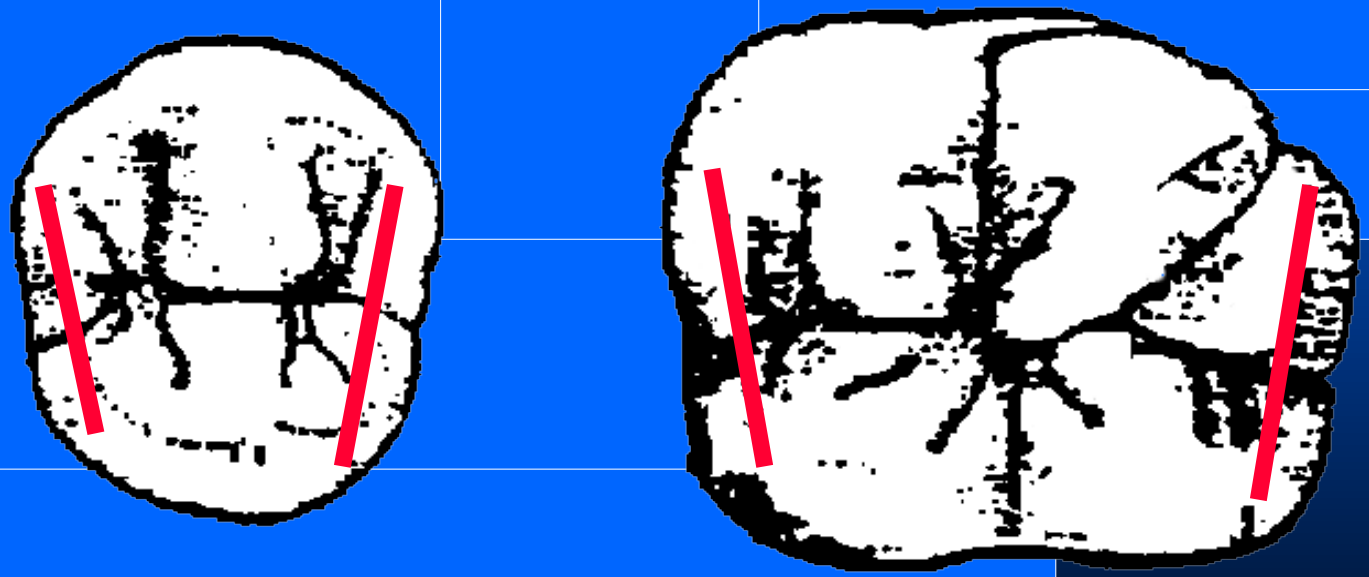
Interproximal space (embrasure) - spaces between

teeth, filled with

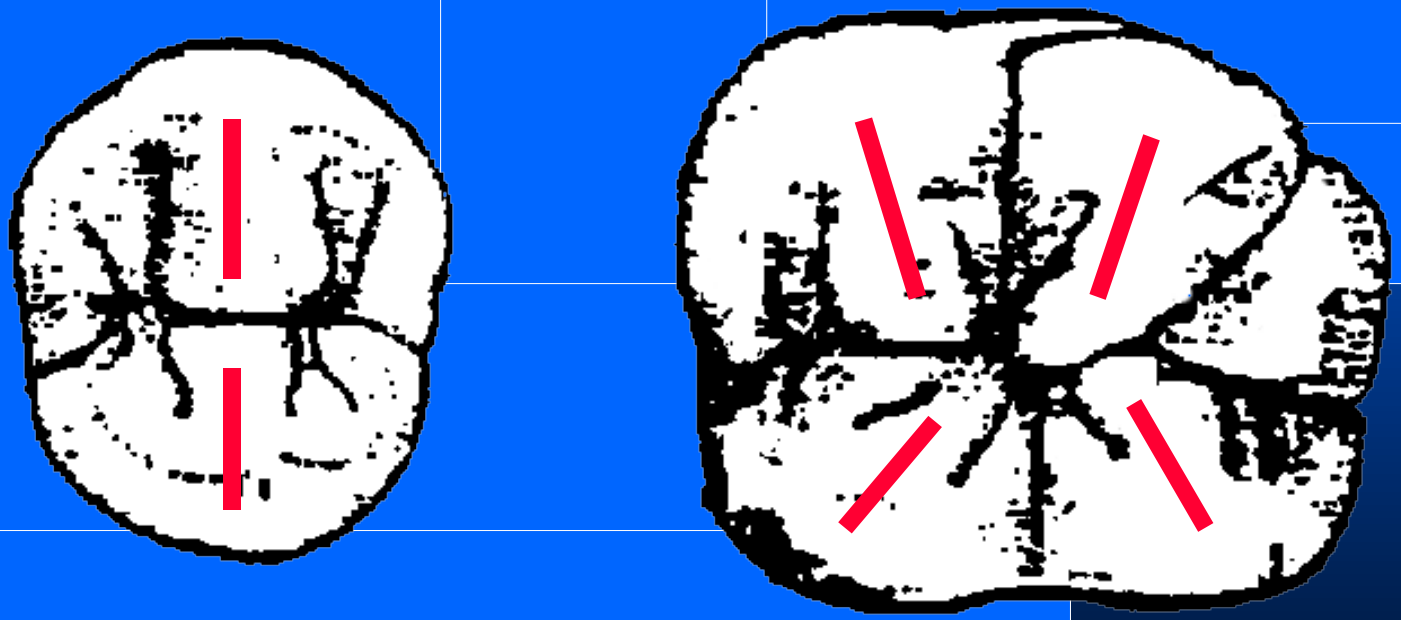
(interdental papilla).



Marginal Ridge

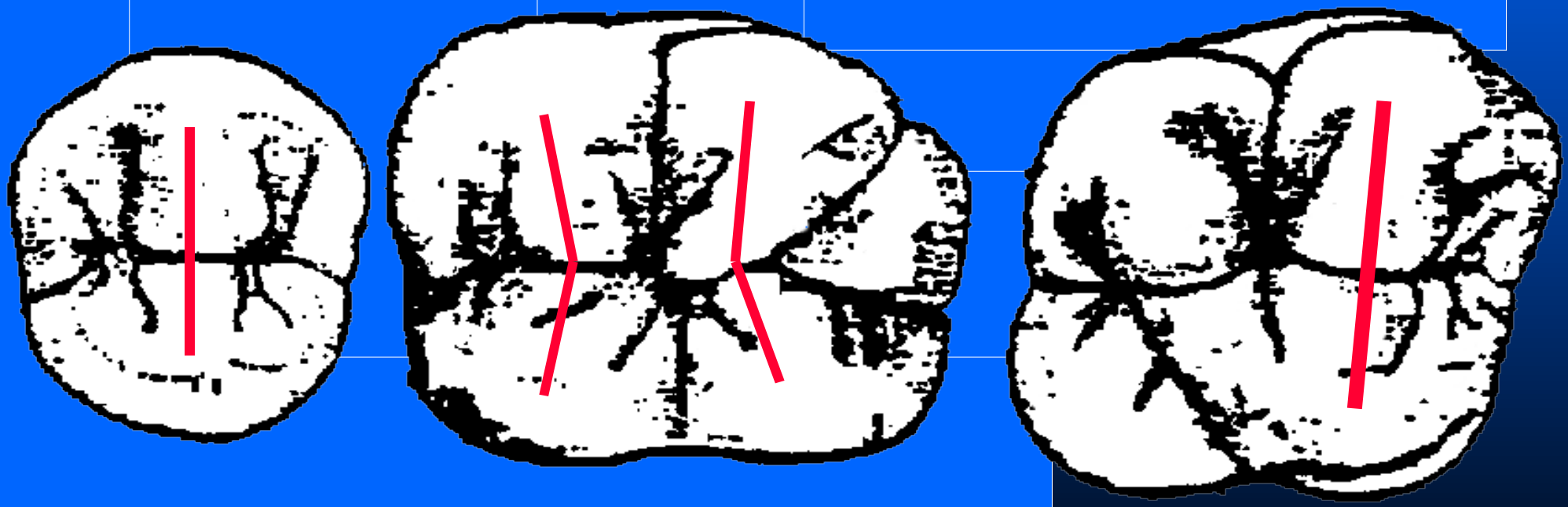


Triangular Ridge



Transverse Ridge

Premolar Mandibular molar Maxillary molar



Naming dental surfaces

- Line angle - the line or angle formed by junction of two crown surfaces.
- The name is formed by combining the names of the two (2) adjacent surfaces

Anterior Teeth

a - Mesiolabial

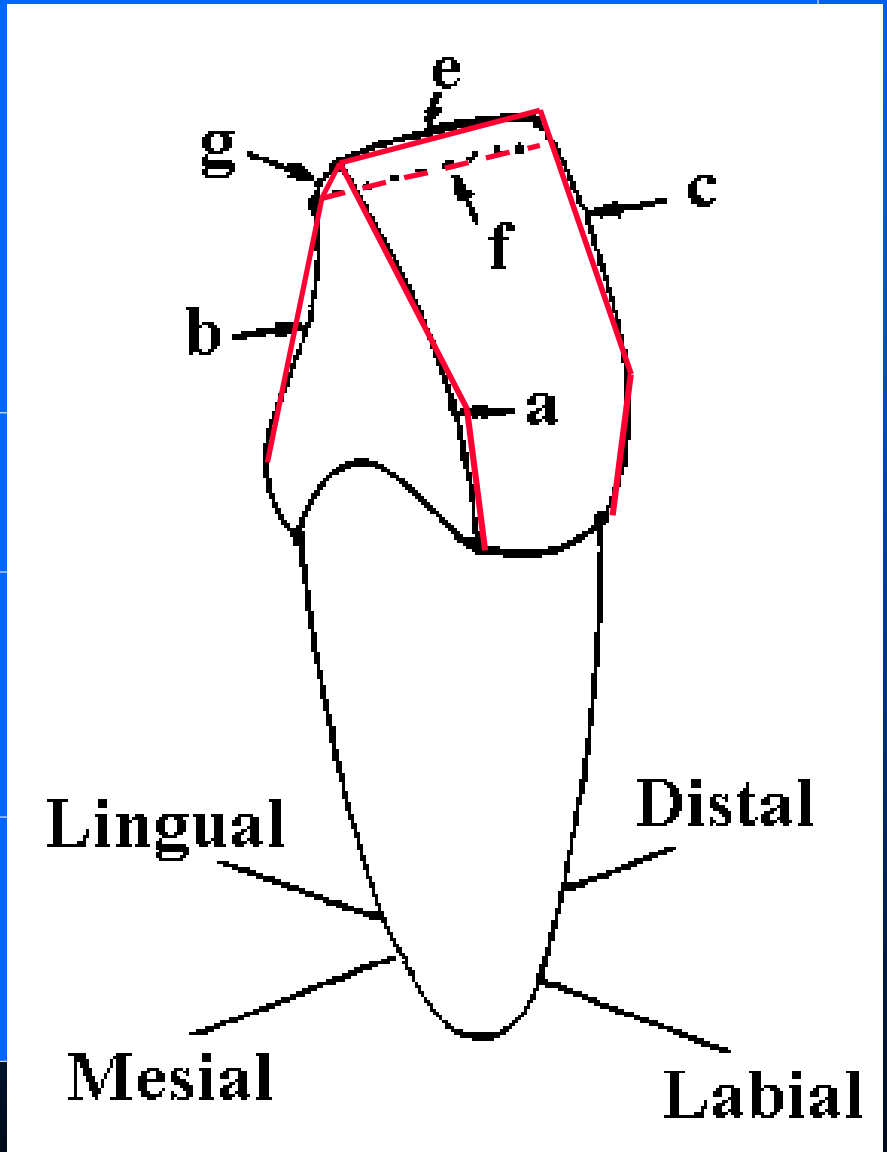
b - Mesiolingual

c - Distolabial

e - Labioincisal

f - Lingual-incisal

g - Mesio-incisal



Posterior Teeth

a - Mesiobuccal

b - Mesiolingual

c - Distobuccal

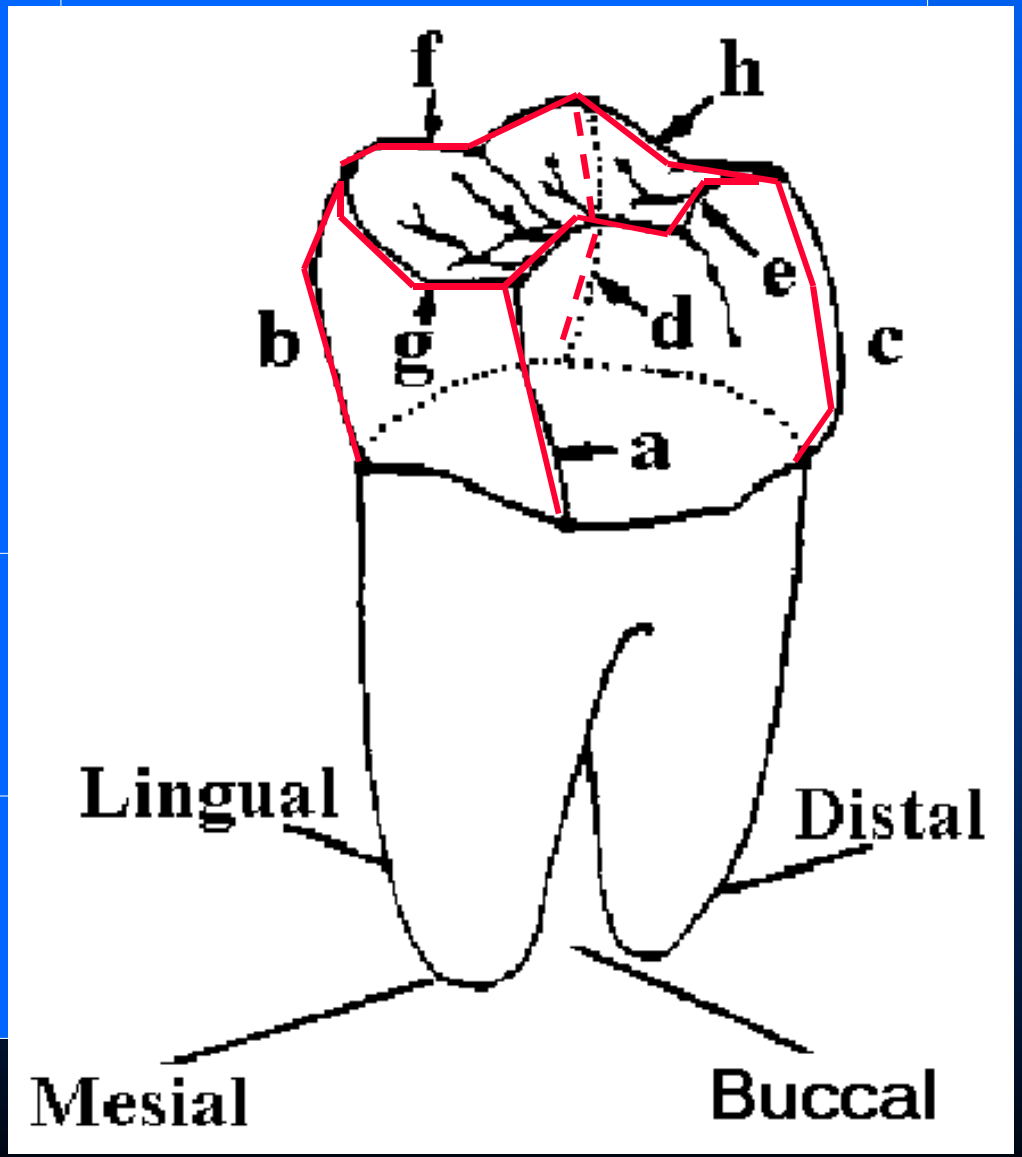
d - Distolingual

e - Bucco-occlusal

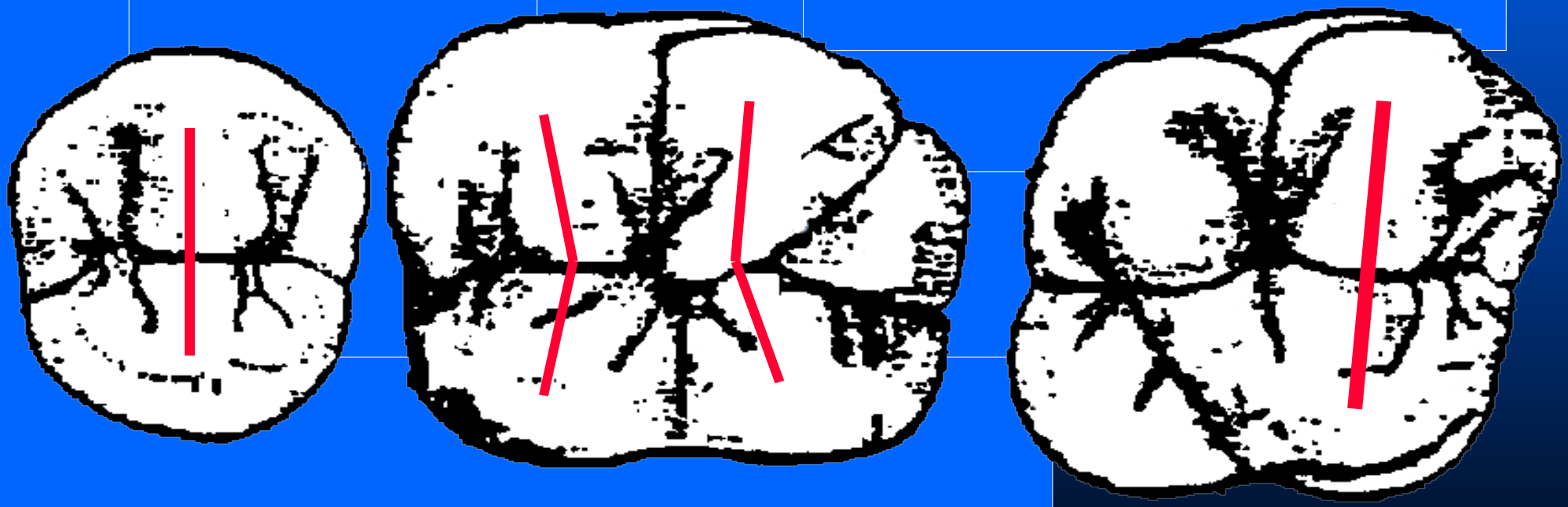
f - Linguo-occlusal

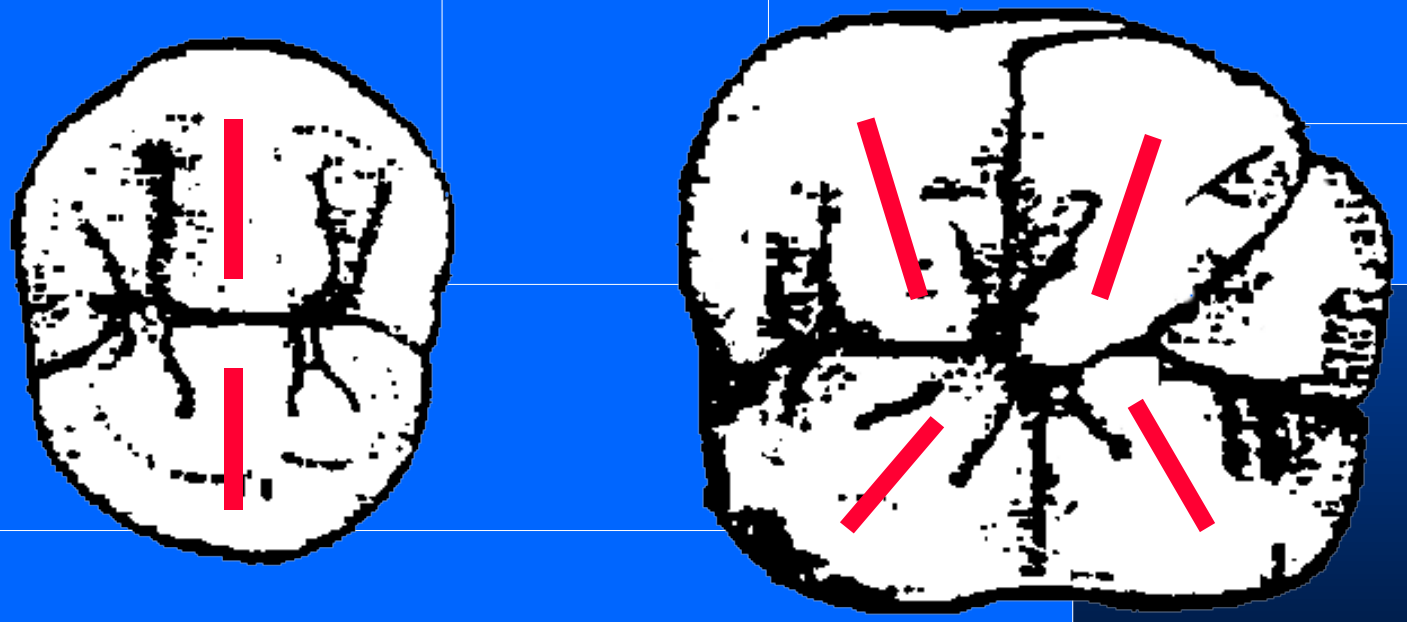
g - Mesio-occlusal

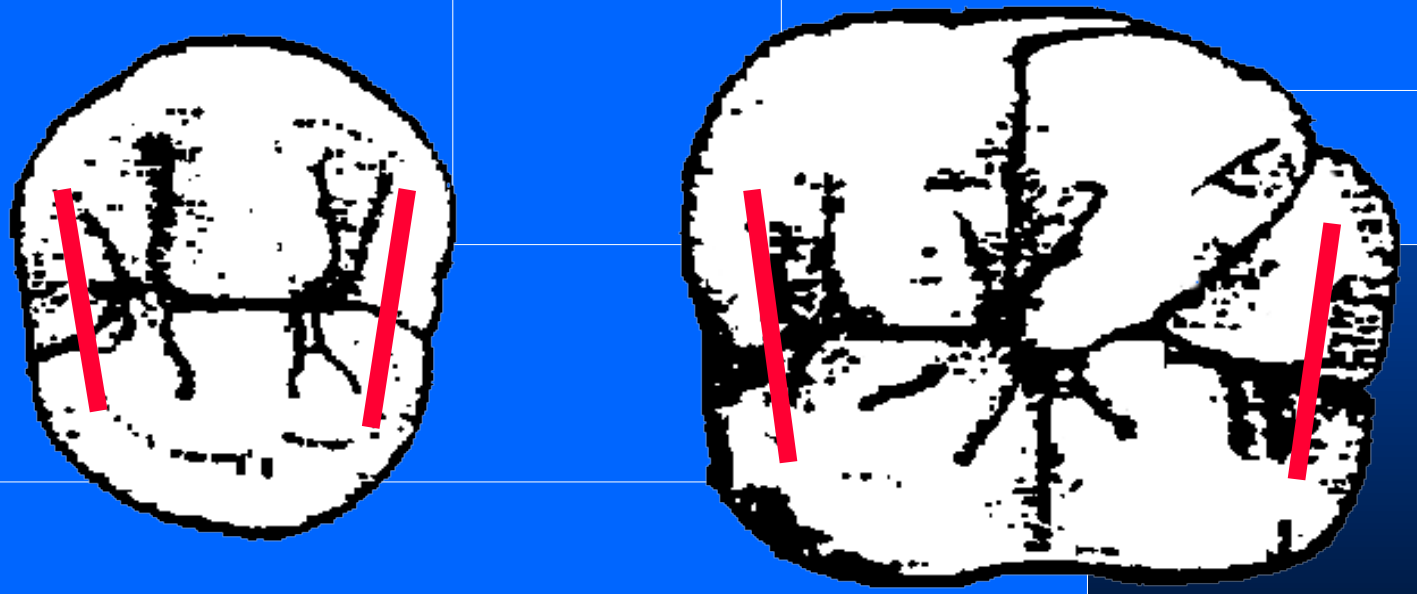
h - Disto-occlusal



Premolar Mandibular molar Maxillary molar







QUESTIONS ????